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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,637

06/19/2006

Max Wyssmann

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BARNES & THORNBURG LLP
750-17TH STREET NW
SUITE 900
WASHINGTON, DC 20006-4675

EXAMINER

DOUKAS, MARIA E

ART UNIT

PAPER NUMBER

3767

NOTIFICATION DATE

DELIVERY MODE

12/21/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vrobertson@btlaw.com
DocketingPAT-DC@btlaw.com

Office Action Summary	Application No. 10/596,637	Applicant(s) WYSSMANN, MAX	
	Examiner MARIA E. DOUKAS	Art Unit 3767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/15/2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,275 to Wyssmann (Wyssmann) in view of U.S. Patent No. 4,646,925 to Nohara (Nohara).

In Reference to Claims 1, 3, 5, 7

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Wyssmann teaches a device (Figure 4) for deliberate, controllable delivery or drawing of a lubricant (col. 7, lines 24-27), comprising: a cylindrical reservoir (container 1; col. 3, lines 57-58) having a piston (piston 6) dividing the reservoir into a storage chamber (mass chamber 5) for the lubricant and a pressure chamber (gas chamber 4) for hydrogen gas, wherein the piston is positioned to be moveable longitudinally within the reservoir (col. 12, lines 30-32); the storage chamber for the lubricant leading into a discharge opening (Figure 4) in the reservoir for the lubricant; an insert (clamping device 12) in the pressure chamber which insert contains at least one hydrogen gas generating cell (gas evolution cell 8; col. 1, lines 36-39) and a circuit (load resistor 9) for the running-time control. Wyssmann fails to teach wherein the wall of the reservoir is constructed in three transparent layers (an inner, central, and outer layer), at least two of the layers consisting of different chemical substances, with the central layer having a lower diffusion coefficient for gas to be generated by the gas generating cell than the inner and outer layers.

Nohara teaches a multi-layer container (Figure 8) The multi-layer container has a polyester (e.g. PET; col. 1, lines 40-47) inner layer 8 and outer layer 10 and a gas-barrier resin (e.g. EVOH; col. 1, lines 40-47) intermediate layer 9 (Figure 1). The intermediate layer provides a gas barrier, which would provide the claimed lower diffusion coefficient for hydrogen of the central layer (col. 1, lines 23-44; col. 2, lines 43-61) as the gas barrier provides lower gas permeability, which indicates a lower gas diffusion coefficient. Further, because the construction of the layers with PET as the outer and inner layer and EVOH as the central layer of the prior art is the same as that

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claimed by applicant to provide the lower diffusion coefficient of the central layer and transparency of the layers, there is no patentable distinction in structure between that claimed and that taught by the prior art. Nohara teaches this three-layer construction in order to provide a container that provides both the advantages of a PET container as well as provides improved gas barrier properties (col. 1, lines 23-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the container 1 of Wyssmann to have a transparent multi-layered wall composed of an inner PET layer, an outer PET layer, and an intermediate EVOH layer as taught by Nohara in order to provide a container that provides both the advantages of a PET container as well as provides improved gas barrier properties (col. 1, lines 23-44).

4. Claims 6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,275 to Wyssmann (Wyssmann) in view of U.S. Patent No. 4,646,925 to Nohara (Nohara) as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2005/0037165 to Ahern (Ahern).

In Reference to Claim 6

Wyssmann in view Nohara teaches the device of claim 1 (see rejection of claim 1 above) but fails to teach wherein the center layer comprises polyamide. Ahern teaches a multi-layer container with a central layer that can serve as a gas barrier layer (paragraph [0032], wherein EVOH, which provides a gas barrier is the central layer) in

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order to provide a material that inhibits the passage of gases through the polymer wall (paragraph [0023]). Ahern further teaches that polyamide can be used as a barrier material (paragraph [0026]), although it is not specified whether the polyamide would be used as the central core layer or one of the skin layers.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the central layer of Wyssmann in view of Nohara to comprise a gas barrier layer as taught by Ahern in order to provide a material that inhibits the passage of gases through the polymer wall (paragraph [0023]). As Ahern teaches that polyamide is a suitable barrier layer (paragraph [0026]), one of ordinary skill in the art at the time the invention was made would be capable of choosing the polyamide as the central core layer.

In Reference to Claims 8-10

Wyssmann in view of Nohara teaches the device of claim 1 (see above) but fails to teach the thickness of the central layer having a thickness in the range that is claimed. Ahern teaches a three-layer container with the central layer having a thickness that is within the claimed range of thickness in relation to the thickness of the entire wall (paragraph [0052]). As it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (see MPEP §2144.05), it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the thickness of the central layer of the device of Wyssmann in view of Nohara to have a

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thickness within the claimed range. Further, as evidenced by Ahern, constructing a three-layer container with the central layer thickness being within the claimed range is known in the art.

5. Claims 4 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,275 to Wyssmann (Wyssmann) in view of U.S. Patent No. 4,646,925 to Nohara (Nohara) as applied to claim 1 above, and further in view of U.S. Patent No. 5,363,890 to Yeung (Yeung).

In Reference to Claims 4, 11, and 12

Wyssmann in view of Nohara teaches the device of claim 1 (see rejection of claim 1 above) but fails to teach a closing device that can be detached and is molded to the discharge opening. Yeung teaches a membrane closure 70 that contains a skirt 80 and support ring 74 that provides a closing device for a bottle (Figures 11-12), wherein there are breaking points (notches 78) in order to provide a water tight seal at the bottle opening that can be opened to allow fluid flow from the bottle (col. 2, lines 4-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the container of Wyssmann to have the membrane closure with support ring and notches at the discharge opening as taught by Yeung in order to provide a water tight seal at the container opening that can be opened to allow fluid flow from the container (col. 2, lines 4-8).

Response to Arguments

6. Applicant's arguments filed 9/15/2009 have been fully considered but they are not persuasive. The argument that Nohara fails to teach a structure that would retain hydrogen under high pressure is not found persuasive, as the construction of the three-layer container of Nohara comprises the same material construction as that of applicant (e.g. PET outer and inner layers and EVOH core layer). Therefore, as the materials of the prior art are the same used as that by applicant, the claim limitation as it reads in independent claim 1 wherein "the central layer has a lower diffusion coefficient for the hydrogen gas..." is met, as although Nohara does not explicitly teach retaining hydrogen molecules within the container, the structure would be capable of performing this desired function. Further, there is nothing in the claim as it stands now regarding the retention of hydrogen under high pressure, and this is therefore not a limitation of the current pending claim. The arguments with regards to the thickness of the central layer not being taught by Nohara is persuasive, and the rejection of claims 8-10 has been amended as described above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA E. DOUKAS whose telephone number is (571)270-5901. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM EDT.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571)272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD

/Kevin C. Sirmons/

Supervisory Patent Examiner, Art Unit 3767